

The Examiner has identified the following amendment language as introducing new matter into the claims:

1. Coupling a service level agreement broker to the foreign network, separate from any AAA server, to support establishment and maintenance of a plurality of security associations for multiple networks and multiple nodes used in communications on the communications system.

2. To include establishing and maintaining a single service level agreement for communications among multiple networks and multiple nodes.

3. Establish security associations that can include a single security level agreement established on multiple nodes among different network to form a virtual private network.

4. Said broker existing and functioning separately from any AAA server.

The Examiner is wrong. Each of these claim elements are clearly and unambiguously supported by the specification and drawings of the original application.

I. Coupling a service level agreement broker to the foreign network, separate from any AAA server, to support establishment and maintenance of a plurality of security associations for multiple networks and multiple nodes used in communications on the communications system.

The support for this element is found in Fig 4 and in the specification at page 18-

21. The service level agreement broker (element 375) is depicted as separate from the AAA servers in the network. In describing the function of the SLA brokers, the specification states the following:

To eliminate the need for each network to establish individual SLA's with every other service provider and network on the Internet, SLA brokers can

be assigned the responsibility of establishing and maintaining SLAs found on different networks (and reciprocal agreements with other SLAs and SLA Brokers). Accordingly, the SLA Broker becomes a consortium of agreements between various networks and service providers. *Application, p. 10, ln 4-10.*

This claim element is clearly supported.

II. To include establishing and maintaining a single service level agreement for communications among multiple networks and multiple nodes.

As noted above, the function for service level brokers includes “establishing and maintaining SLAs found on different networks.” Additionally, the specification states the following:

A home network need only establish one relationship with the SLA Broker in order to gain access to the other SLAs supported by the SLA Broker. With the support of such an SLA Broker, a mobile node from the home network can roam about any other network supported by the home network’s SLA Broker. *Application, p. 10, ln 11-15.*

Establishing multiple SLAs among multiple service providers and networks increases the management complexity of the system. In order to reduce this management complexity and allow large-scale roaming among different networks, SLA Brokers can be established to provide a common support platform for multiple SLAs. The SLA Broker essentially becomes a consortium of SLAs from various networks, and Mobile Nodes need only have a relationship with a single SLA maintained by an SLA Broker to acquire indirect access to other SLAs through the reciprocal agreements with other SLAs maintained by the SLA Broker (and indirectly other SLA Brokers). By allowing access to all SLAs in a network, the Mobile Node can roam throughout the networks without having to establish independent relationships with the other SLAs. *Application, p. 18, ln 24-p. 19, ln 4.*

This claim element is clearly supported.

III. Establish security associations that can include a single security level agreement established on multiple nodes among different network to form a virtual private network.

In addition to the above functions for the SLA brokers, the specification states the

following:

The present invention improves the security of communications in a IP-based mobile communications system by creating variable-based Security Associations (SAs) between various nodes on the system, a Virtual Private Network supported by a Service Level Agreement (SLA) between various foreign networks and a home network, and an SLA Broker to promote large-scale roaming among different SLAs supported by the SLA Broker or agreements with other SLA Brokers. Any one of these aspects will improve the security of the system, and each aspect is independently covered by the present invention.

Variable-Based Security Associations

Security Associations, called SAs, are relationships between secure nodes, or routers, of the Internet. The present invention establishes SAs between various nodes and agents on the system to comprehensively, and flexibly, cover connections in the network.

Service Level Agreements (SLAs) and Virtual Private Networks (VPNs)

A service level agreement (SLA) may be created between networks on the Internet to establish Security Associations between Authentication, Authorization, and Accounting (“AAA”) servers on various administrative domains or networks. The AAA servers on the SLAs can assist in the management of SAs and the uniform transfer of encrypted information packets between AAA servers using a well-defined security protocol.

An SLA can be formed between the AAA servers on several foreign networks and a home network. By working cooperatively, the AAA servers form a secure network for communications. Essentially, this system forms a Virtual Private Network (or “VPN”) between the foreign networks and the home network thereby supporting secure tunneling of information packets among the networks on the VPN. *Application, p. 9, ln 5 – p. 10, ln 2.*

The specification clearly supports establishing a VPN wherein a SLA is formed between the AAA servers on several foreign networks and a home network. As noted above, the SLA broker can be used to establish SAs, and that action can include establishing this single SLA. The limitation is clearly supported.

IV. Said broker existing and functioning separately from any AAA server.

The Applicant never claims or describes the broker as anything other than an entity functioning and existing as a separate entity compared to the AAA servers in the network. The specification always explicitly describes and considers the AAA servers and broker as separate entities performing dissimilar functions. Figure 4 and pages 18-21 clearly differentiate the broker from the AAA servers and never imply that the two entities can exist as one. To the contrary, there is no support in the specification to suggest that the broker and the AAA server are anything other than separate entities. The contention that the broker and AAA sever are one and the same is predicated on art identified by the Examiner, and the Applicant disagrees with that contention. Nevertheless, the claims have been amended to clarify that the AAA servers and brokers are separate entities. There is clearly support for this limitation.

V. CONCLUSION

The new claim elements the Examiner identifies as new matter are in fact explicitly found in the specification. Each of the claim elements is supported in the application as original filed. As such, there is no issue that these elements are not new matter. As such, these amending claim elements are proper and should be considered in the Continued Examination.

Accordingly, pending claims 1-37 as amended should be considered on their merits. It is believed the claims are allowable because the claimed invention is not disclosed, taught, or suggested by the references that have been cited. A fee in the amount of \$790.00 for the Request for Continued Examination is enclosed. It is believed

that no additional fees are necessary for this filing. If additional fees are required for filing this response, then the appropriate fees should be deducted from D. Scott Hemingway's Deposit Account No. 501,270.

Please note that our mailing address has changed, and the United States Patent and Trademark Office records should be updated with the new address.

Respectfully submitted,

A handwritten signature in cursive script that reads "Malcolm W. Pipes".

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